

AMENDMENTS TO THE SPECIFICATION

In the Specification

Please substitute the following amended paragraphs (deleted matter is shown by strikethrough and added matter is shown by underlining):

Page 1, lines 1-21, please amend as follows:

BACKGROUND OF THE INVENTION

(1) FIELD OF THE INVENTION:

The present invention relates to welding two metal work-pieces together and relates in particular, but not exclusively, to welding together two relatively thick work-pieces made from metal alloys that have been prepared for use in the manufacture of aircraft components.

(2) DESCRIPTION OF RELATED ART

When manufacturing aircraft components it is sometimes necessary or desirable to weld together thick work-pieces for example solid blocks of aluminium alloy having a thickness of 50 mm or greater. The alloy will typically be an aluminium alloy that has been treated so that it has certain mechanical properties necessary for the alloy to be suitable for use in the manufacture of aircraft components. As a result, the microstructure of the alloy is formed of relatively coarse elongate grains that are generally oriented parallel to each other. Welding blocks of aluminium of such a thickness is generally performed by means of a fusion welding process such as an electron beam (EB) welding process. It is common when joining blocks of aluminium in this way for cracks to form (for example micro-cracks) in or near the region of the weld. Such cracks weaken the welded component particularly under fatigue loading.